

NEW YORK STATE CAREER AND TECHNICAL EDUCATION

GUIDELINES FOR CAREER AND TECHNICAL EDUCATION ADMINISTRATORS AND SCHOOL COUNSELORS

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Chapter 1: Career and Technical Education Definition and Requirement

Definition

Career and technical education (CTE) is an umbrella term for instruction that introduces students to career opportunities and requirements and helps them obtain technical skills, apply academic skills, and develop career-related behaviors. In the past, CTE was called vocational, occupational, or practical arts education, but today, career and technical education is the standard name.

CTE is defined in New York State Commissioner's Regulations (CR) as follows.

CR Part 100.1(I), Definitions

Career and technical education means a kindergarten through adult program area of study that includes rigorous academic content closely aligned with career and technical subject matter, using the State learning standards of career development and occupational studies [CDOS] as a framework. In grades nine through twelve, career and technical education includes the specific disciplines of agriculture education, business and marketing education, family and consumer sciences education, health occupations education, technical education, technology education and trade/industrial education.

[Note: Several of the CTE content disciplines currently use slightly different terms: agriculture education uses agricultural education, health occupations uses health science education, and technical education and trade/industrial education combines to use trade and technical education. With the growth of Pre-K in many school districts, CTE, like other subjects, is considered P-12.]

The purpose of CTE is to provide learning experiences where students become aware of a broad spectrum of careers and develop skills that are applicable to personal and career roles and are necessary for employment in specific career areas or postsecondary study. CTE programs aim to prepare students for life after high school.

Content Area Definitions

Following are definitions of the six CTE content areas in New York State.

Agricultural education teaches students about careers related to agriculture, food, fiber, natural resources and about the science of technology of plant and animal production and/or about environmental systems.

Business and marketing education covers the fields of administration, finance, marketing, and management. Course content includes communications, information systems/technology, accounting, economics, entrepreneurship, international business, management and law, and interpersonal and leadership skills.

Family and consumer sciences education includes instruction in three broad learning strands: foods and nutrition; human services and family studies; and textiles and design. Individual course content focuses on human development, personal and family finance, housing and interior design, food science, nutrition and wellness, textiles and apparel, and consumer issues.

Health science education prepares students for career entry and postsecondary studies in healthcare fields including nursing, dental hygiene and dental assisting, home health aide, and medical technician.

Technology education prepares students for STEM-related postsecondary studies and careers, including engineering, technology, design, and applied aspects of science and mathematics.

Trade and technical education prepares students for initial employment in a wide range of trade occupations including carpentry, masonry, electrical, and construction management; automotive technology; heating, ventilation and air conditioning systems; computer-aided drafting and manufacturing, security, and cosmetology. It includes training for apprentice trades, technical occupations, and other industrial and service occupations.

Availability of Career and Technical Education

The requirements mandating public school districts to make CTE instruction available to all New York State students are specified in both New York State legislation and the Regulations of the Commissioner of Education.

Education Law: Article 93

§ 4602. Career education.

- 1. The board of education of each school district shall provide secondary school pupils and adults access to programs of career education, commensurate with the interests and capabilities of those desiring and having a need for preparatory training, retraining or upgrading for employment, and develop realistic programs in accord with manpower needs in existing and emerging occupations for present and projected employment opportunities.
- 2. Career education programs and classes shall be organized and conducted by boards of education or arranged through shared services as provided boards of cooperative educational services, in accordance with the rules of the board of regents and the regulations of the commissioner of education. Boards of education that are designated by the commissioner as major career education providers shall submit to the commissioner every two years, no later than the date specified by the commissioner, a career education program plan, in a form specified by the commissioner, which shall be revised annually.
- 3. Programs may include pre-vocational activities, career classes, apprentice related instruction, cooperative education, work experience, continuing adult career education, and other effective means of preparation and of upgrading employment capabilities. Classes for out-of-school youth sixteen years of age and over and for adults may be conducted during the day and evening.
- 4. The board of education of each school district maintaining programs in career education, practical arts, vocational and educational guidance, or continuing career education for adults has full power and authority:
 - a. To employ properly certified directors, supervisors, principals, teachers and counselors and assign them to serve in the schools and classes authorized by this article.

- b. To establish approved courses of study.
- c. To purchase or acquire sites and grounds; to purchase, acquire, lease or construct and to repair suitable shops and buildings or to arrange for shared services.
- d. To purchase necessary machinery, tools, apparatus, books and supplies.

[Note: The law uses several historic terms like: career education, practical arts, and vocational, all of which refer to what is now known as **career and technical education**.]

CR Part 100.2(h), General School Requirements

Availability of career and technical education and arts sequences.

All public school districts shall offer students the opportunity to complete a three- or five-unit sequence in each of the following areas: career and technical education and the arts.

- 1. All public school districts shall offer students the opportunity to begin an approved sequence in the arts in grade nine.
- 2. All public school districts shall offer students the opportunity to begin an approved career and technical education sequence in grade nine. Only those career and technical education sequences which have been approved by the commissioner may be used to fulfill the requirements for a diploma set forth in section 100.5 of this Part.
- 3. For students first entering grade nine in 1985 and thereafter, each approved career and technical education sequence shall include a minimum of one unit of credit in Introduction to Occupations [now called Career and Financial Management, .5 credit], to be offered at any point in the sequence.
- 4. For students first entering grade nine in 1988 and thereafter, approved sequences of three units of credit in a career and technical education subject shall be so organized that they may be extended into approved sequences of five units of credit or more without loss of credit.
- 5. For students first entering grade nine in 1988 and thereafter, approved sequences of five units of credit or more in career and technical education shall prepare students for both employment and postsecondary education and shall be satisfactory to the commissioner.
- 6. All public-school districts shall offer students the opportunity to meet the learning standards in technology. Districts shall choose one or more options to meet this requirement pursuant to section 100.5 of this Part.

Dual Enrollment: Services to Students in Nonpublic Schools

Under Section 3602-c of Education Law, students in nonpublic schools may also enroll in public school programs in three categories: occupational [CTE], gifted, and handicapped education.

Dual enrollment does not in any way jeopardize the student's enrollment in the nonpublic school nor does it involve the student's registration in a public school. Through a request for participation in a dual enrollment program, a student is considered enrolled in the public school, but no formal registration in the public school is required. In order to arrange for participation in an education program, the parents of a nonpublic school student must file a written request with the board of education of the district in which the pupil resides. June 1 is the deadline for these requests.

Further information on this provision in education law is available in the Handbook on Services to Pupils Attending Nonpublic Schools.

Characteristics of Career and Technical Education Programs

Elements of an effective CTE program include:

- certified CTE teachers who remain current within their profession
- a sequence of courses that prepares students for employment or postsecondary study
- a work-based learning opportunity
- a business and industry consultant committee that provides input into the program
- an opportunity to apply academic concepts to real-world situations
- the opportunity to earn college credit for college-level high school programs
- preparation for industry-based student assessments
- an opportunity to use the most current business/industry-based technologies
- an opportunity to achieve the career majors standard (CDOS Standard 3b)
- an active CTE student leadership organization (CTSO) to promote leadership and service

Chapter 2: Student Learning Standards

Career and technical education is a pre-kindergarten through adult area of study that includes rigorous academic content closely aligned with career and technical subject matter. It uses the New York State learning standards of Career Development and Occupational Studies (CDOS) as a framework (Commissioner's Regulations 100.1(I)).

The CTE learning continuum begins in pre-school or elementary school with classroom activities intended for career awareness, proceeds through the middle level with required coursework aimed at career exploration, and progresses on to high school with the goal of career development and planning in preparation for postsecondary education and the workplace. Ideally, the CTE continuum prepares students to become successful adults who are able to navigate the future education and training required of them.

The New York State learning standards for grades P-12 were developed to assure that **all** students achieve a high level of knowledge and the ability to apply that knowledge in real-world situations. Standards-based education addresses two types of standards: content and performance. Content standards identify what students should know and be able to do. Performance standards identify levels of achievement in relation to the content standards.

Career Development and Occupational Studies Learning Standards

The Career Development and Occupational Studies learning standards provide students the opportunity to learn the value of work in our society, become familiar with ways to use academic knowledge to solve real-world problems, acquire the broad-based skills necessary for success, and learn the technical skills used in a particular career cluster. These standards were approved in 2000 by the New York State Board of Regents and apply to instruction in all subjects considered part of CTE.

Standard 1 Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2 Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Standard 3b Career Majors

Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.

See the New York State Education Department website for more information on the CDOS standards.

Academic Standards

When integrating academics such as English language arts, mathematics, science, or social studies into CTE programs, it is required to use current academic learning standards approved by the New York State Board of Regents.

Following are links to current academic standards.

English Language Arts

Mathematics

Science

Social Studies

Career Clusters

Instruction in CTE in New York is offered in six separate subjects areas.

- Agricultural education
- Business and marketing education
- Family and consumer sciences education
- Health science education
- Technology education
- Trade and technical education

Another organizing structure used by the CTE community is the National Career Clusters® Framework. The 16 Career Clusters, also used by the U.S. Department of Labor and U.S. Department of Education to define career fields, provide the detail (i.e., information about the 79 career pathways within the larger cluster framework) that gives program planners a better idea of how to align CTE programs of study to labor market conditions.

The 16 Career Clusters

- 1. Agriculture, Food & Natural Resources
- 2. Architecture & Construction
- 3. Arts, A/V Technology & Communications
- 4. Business Management & Administration
- 5. Education & Training
- 6. Finance
- 7. Government & Public Administration
- 8. Health Science
- 9. Hospitality & Tourism
- 10. Human Services

- 11. Information Technology
- 12. Law, Public Safety, Corrections & Security
- 13. Manufacturing
- 14. Marketing
- 15. Science, Technology, Engineering & Mathematics
- 16. Transportation, Distribution & Logistics

New York State CTE Content Areas alignment with the 16 Career Clusters

Agricultural education aligns with:

Agriculture, Food & Natural Resources Education & Training

Business and marketing education aligns with:

Business Management & Administration

Finance

Government & Public Administration

Hospitality & Tourism

Information Technology

Law, Public Safety, Corrections & Security

Marketing

Family and consumer sciences education aligns with:

Agriculture, Food & Natural Resources

Architecture & Construction

Arts, A/V Technology & Communications

Education & Training

Finance

Health Science

Hospitality & Tourism

Human Services

Marketing

Science, Technology, Engineering & Mathematics

Health science education aligns with:

Education & Training

Health Science

Human Services

Technology education aligns with:

Architecture & Construction

Arts, A/V Technology & Communications

Information Technology

Manufacturing

Science, Technology, Engineering & Mathematics

Transportation, Distribution & Logistics

Trade and technical education aligns with:

Architecture & Construction
Arts, A/V Technology & Communications
Government & Public Administration
Human Services
Information Technology
Law, Public Safety, Corrections & Security
Manufacturing
Science, Technology, Engineering & Mathematics
Transportation, Distribution & Logistics

Chapter 3: CTE Instruction Grades P-12

The CTE Continuum

The P-12 Career and Technical Education (CTE) Continuum of Studies is illustrated in the table below.

The CTE Continuum \rightarrow

Characteristics	Pre K Middle Elementary Level		High School	Postsecondary
Grades	P-4	5-8	9-12	Adults
Students	All Students All Students		Student Selected	Student Selected
Teacher	Classroom Teacher	Any CTE Teacher	Specific CTE Teacher	Industry Expert or College Professor
Time Requirement	School determined	1¾ unit	½ unit elective to multiple unit sequence	Industry Certification to Degree program
Goal	Career Awareness	Career Exploration	Career Planning	Career Success

Early Learning and Elementary CTE Instruction

The CTE learning continuum begins with career awareness activities for students in early learning settings. The purpose of career awareness activities for preschool students is to help them understand the world around them. Developmentally appropriate preschool career activities focus on the careers that young learners would recognize. These activities invite children to play, watch, do, and explore.

The Career Development and Occupational Studies learning standards (elementary level) are the basis for CTE instruction in grades K-4. Elementary school leaders and classroom teachers determine how these standards will be addressed in the classroom. Activities that encourage an awareness of careers within the community and beyond are appropriate for these young learners. Elementary school CTE experiences prepare students for the career exploration focus at the middle level (see CTE Continuum diagram).

Middle Level CTE Instruction

In New York State, students are offered their first formal introduction to CTE at the middle school level. According to Commissioner's Regulations 100.4(c), all middle-level students are entitled to 1 3/4 units of CTE instruction. Instruction, by teachers certified in any CTE content area, may begin as early as grade 5 and must be completed by the end of grade 8. High-quality, relevant CTE learning experiences encourage middle-level students to pursue personal interests; engage in school and community activities; explore potential futures and careers; and begin to develop the social, interpersonal, and life skills needed in the years to come.

Curricular guidance, available for the 2018-19 school year, will help CTE teachers and school leaders develop middle level CTE learning experiences that are meaningful to the students in their communities. The middle level CTE guidance materials are a framework from which individual school curricula can be built. The base of the framework is the CTE Theme Modules. The Themes Modules are foundational, standards-based, and cross CTE content areas. Teachers certified in any CTE content area are prepared to deliver lessons aligned with these themes: Career and Community Opportunities; Financial and Consumer Literacy; Health, Safety and Wellness; Communication; Sustainability; and Problem-Solving and Innovation.

Content Modules, specific to each CTE content area, provide the context for learning about the themes. Standards-based Content Modules are designed for each of the six CTE content areas and intended to be taught by CTE teachers certified in that content. Content Modules connect middle level experiences to high school opportunities.

Local districts will design the project-based learning experiences that will help their middle level students gain foundational CTE knowledge and skills through the lens of the CTE content area(s) they have represented in their systems (see Curricular Framework for Middle Level CTE).

The goals of middle level CTE, built on this framework of Theme Modules supported by Content Modules, are to:

- bridge middle level CTE to high school CTE,
- expose students to all CTE content areas,
- allow for flexibility in delivery by using a module format, and
- foster acceleration into graduation pathways that capitalize on students' interests in CTE content.

Curricular Framework for Middle Level CTE

Modules Community and Safety,	Problem-
	أمسم مستبراه
↓ Opportunities Consumer and Ir	Solving, and
	Innovation
Literacy Wellness	
Agriculture	
School District Middle Level CTE Curriculum	
School-designed project-based learning experiences that will help middle level	el students
Business gain foundational CTE knowledge and skills (themes) through the lens of the	
and CTE (content) they have represented in their system	
Marketing	
Family and	
Consumer	
Sciences	
Health	
Science	
Technology	
Education	
Education (
Trade and	
Technical Technical	
Education	
Luucation	

Project-based middle level CTE encourages students to acquire and demonstrate college, career, and life readiness skills that can be applied at home, in school, in the workplace, and in the community now and in the future.

The Board of Regents has approved multiple pathways to high school graduation that allow students to demonstrate attainment of the learning standards in ways that are most meaningful to them. Middle level CTE introduces all students to CTE areas and pathways, so all students have the opportunity to explore content areas they can study later in greater depth on their paths to graduation. With exposure to the possibilities available in high school, middle level students can fully participate in their high school planning process.

High School CTE Instruction

In grades 9-12, career and technical education includes coursework and other learning experiences that lead to career planning and technical skill development. In contrast to middle level CTE, which is exploratory and broad-based, each high school CTE course is focused on a particular content area. Some students opt for a single course or two to try out a CTE area of interest; other students decide to focus

their high school schedule on an organized sequence of CTE courses in a multi-unit program. CTE experiences can be provided through several options including elective courses, locally defined sequences of courses, state-approved CTE programs, work-based learning, and academic career-focused programs, such as New Vision and P-TECH. Details on these options are provided in Chapter 4.

Career Plan

The development and on-going review of student career plans, required by regulation, offer students the opportunity to reflect on their pathways to graduation and beyond. Career plans, developed by students and school counselors to chart the growth of interests and goals, can guide choices students and their parents make each year. The career plan helps connect individual student's learning experiences across the stages of the CTE continuum.

The New York State Career Plan records a student's knowledge and skill attainment. It documents the history of achievement that a student builds from preschool through high school. Schools must assist students, as appropriate, in developing career plans. A student's preferences and interests, as identified in the plan, must be reviewed by the student at least annually. School counselors can be effective partners in the development and stewardship of student career plans.

Career Plan Requirement

Section 100.2(j)(ii) of the Commissioner's Regulations requires that guidance programs in grades 7-12 shall include an annual review of each student's educational progress and career plans.

ii. In grades 7-12, the guidance program shall include the following activities or services:

- (a) an annual review of each student's educational progress and career plans, with such reviews to be conducted with each student individually or with small groups by personnel certified or licensed as school counselors;
- (b) instruction at each grade level to help students learn about various careers and about career planning skills conducted by personnel certified or licensed as school counselors, or by classroom teachers in cooperation with school counselors;
- (c) other advisory and individual or group counseling assistance to enable students to benefit from the curriculum, to help students develop and implement postsecondary education and career plans, to help students who exhibit any attendance, academic, behavioral or adjustment problems and to encourage parental involvement, provided that advisory assistance shall be provided by teachers or counselors, or by certified teaching assistants under the supervision of counselors or teachers, and that such individual or group counseling assistance shall be provided by certified or licensed school counselors or by certified or licensed school psychologists or certified or licensed school social workers in cooperation with school counselors; and
- (d) the services of personnel certified or licensed as school counselors.

Career Plan and Students with Disabilities

For students with disabilities, the career plan must be considered by the Committee on Special Education in the development of the student's individualized education program (IEP). The career plan incorporates the transition planning process, which is highly desirable for all students and required for students with disabilities. A copy of the career plan in effect during the school year in which a student exits high school must be maintained in the student's permanent record.

Career Plan and CDOS Credential

Documentation of a career plan is required for students who will be earning the CDOS Commencement Credential, either as stand-alone exit credential or as an accompaniment to a high school diploma. To earn the CDOS credential through Option 1, a student must have completed a commencement level career plan that includes:

- the student's self-identified career interests,
- career-related strengths and needs,
- career goals, and
- CTE coursework and work-based learning experiences that the student plans to engage in to achieve those goals.

Developing and Documenting the Career Plan

The activities that students include in their career plans are not limited to those career-related activities provided by the school and may include other activities that students are involved in outside of school (e.g., volunteer work or summer employment). School districts must provide students with the form to document the student's Career Plan. New York State Education Department has developed a model form for this purpose. At middle level, students may choose to develop an online Career Plan, using CareerZone, a career exploration and planning website for youth that is provided at no cost to users by the New York State Department of Labor.

Chapter 4: High School Delivery Options for CTE

Schools, districts, and BOCES technical centers provide CTE learning experiences for high school students through several options including: locally defined sequences of courses, state-approved CTE programs, elective courses, work-based learning, and academic career-focused programs. Any high school student can select CTE coursework as a means to earn credits to fulfill graduation requirements.

Schools, districts, and BOCES must be mindful of equitable access and supports for all students in CTE programs, including students with disabilities, English language learners, programs that address gender gaps, and other special populations. Specific information regarding special populations in CTE is in Chapter 7.

Locally Defined Sequences

Planning effective and successful CTE programs starts with researching school district, community, regional labor market, and postsecondary education opportunities. Creating effective CTE offerings blends a combination of student interests, availability of learning resources and future career opportunities. Each community is unique. Workforce Investment Boards, Chamber of Commerce, Regional Economic Development Councils, and Department of Labor, and other professional/civic organizations are valuable sources of information for program planning. Community colleges have both academic and economic development departments that can also provide valuable data and insight.

Well-designed sequences and curricula seamlessly connect students to a variety of postsecondary education programs after graduation. Administrators should ensure that the program areas being considered align with available postsecondary opportunities, including certificate programs, two- and four-year colleges, universities, technical schools, apprenticeships, and training programs. CTE programs for high school students are built to provide students with a variety of entry and exit points that are mapped for students, so they can plan for further education and training after they complete their CTE program. For further information on CTE sequences as part of diploma requirements, see Chapter 5.

New York State Approved CTE Programs

BOCES technical centers and many high schools have taken the steps to formalize their CTE high school sequences as a New York State Approved CTE Program. CTE programs obtain New York State approval by completing a comprehensive application that is reviewed by New York State Education Department. Through earning state approval, programs demonstrate the high-quality and rigor needed to prepare students for both careers and postsecondary education opportunities. Approved CTE programs offer benefits to high school students that include:

- the opportunity to apply academic concepts to real-world situations,
- preparation for industry-based assessments or certifications,
- the opportunity to earn college credit or advanced standing while still in high school, and
- work-based learning opportunities where they can demonstrate mastery of skills essential in the workplace.

Approved CTE programs have components in common that make these benefits possible. First, all instruction in an approved CTE program is delivered by New York State certified teachers who are specialists in the CTE content they are presenting. Second, Approved CTE programs are comprised of meaningful strands of courses aligned to the CDOS learning standards, to applicable industry standards, and, the national Career Clusters. The Career and Financial Management course is a part of each learning strand and is often embedded in the technical content of the program. Students earn a minimum of 3.5 credits toward graduation through their Approved CTE Program.

Third, students may satisfy academic credit requirements for graduation through their CTE Approved Program. CTE teachers work with teachers certified in the academic areas for which credit is offered to co-plan, co-deliver, and co-assess learning experiences that result in earning academic credit. Many students achieve academic success through integrated academic coursework within their programs.

Additionally, the content of Approved CTE programs is articulated with coursework in postsecondary institutions. Articulation agreements, required of all Approved CTE programs, offer students a direct benefit, such as college credit or advanced standing.

CTE teachers collaborate with their work-based learning (WBL) colleagues and local business partners to provide students WBL opportunities in a business or community organization away from school. These experiences focus on assisting students to develop broad transferable skills for postsecondary education and the workplace. Quality WBL programs can make school-based learning more relevant by providing students with the opportunity to apply knowledge and skills learned in the classroom to real-world situations.

The combination of academic, technical, and work-world proficiencies developed by students in Approved CTE programs is documented for each student in an employability profile, ideally developed jointly by the student, teachers, and WBL employer. New York State Education Department's employability profile provides a model that schools and BOCES can use to track the knowledge and skill development of students in relation to competencies required for employment or further postsecondary study. In addition to being an important component of an approved CTE Program, the student employability profile can also serve to fulfill the requirements for the CDOS graduation pathway and CDOS Commencement Credential. Students should receive a copy of their employability profile when they exit their CTE program.

A final component common to every approved CTE program is a three-part technical assessment. Technical assessments include both a written section and a performance section that are third-party, nationally-recognized, and industry-standards based. Often, these assessments result in an industry-recognized credential. The third component is a student project or portfolio. Further information on technical assessments is in Chapter 8.

Students who successfully complete an approved CTE program plus all other graduation requirements are eligible for a technical endorsement on their diplomas. Only students who complete an approved CTE program may take advantage of the CTE graduation pathway.

Resources for Program Approval

There are many CTE courses and programs available to high school students that have not yet gone through the CTE approval process. Schools wishing to expand the benefits of their CTE programs by becoming approved will find regulatory information and guidance on the New York State Education Department CTE webpages.

Development of a CTE program for approval often takes many months. First, a self-study team ensures that the program content links to further education, future career opportunities relevant to regional labor market conditions, and helps to close opportunity and skills gaps. Once that self-study team has completed its work, an external review panel and the Board of Education must give their support. In the final step, the application moves on to New York State Education Department for final review and approval.

Programs are approved for five years. Any changes to an approved program, such as a new instructor or a change in the technical assessment, must be submitted to New York State Education Department. Reapproval is required at the end of the initial 5-year approval period.

The Perkins-funded CTE Technical Assistance Center (under contract with NYSED) has extensive materials to support the application process including a planning workbook.

CTE and school leaders can utilize this planning tool to ensure that CTE programs seeking approval:

- follow a rigorous program of study consisting of at least 3.5 credits (4 credits if the program
 includes integrated academic credits) that lead to student attainment of the commencement
 level CDOS learning standards
- align with one of the 16 national Career Clusters and relevant industry/professional standards
- include the required content of Career & Financial Management, which may be embedded throughout other CTE courses
- provide students an employability profile for tracking their knowledge and skill development on competencies required by related careers and postsecondary education
- will be taught by appropriately certified CTE teachers
- offer academic credit for courses developed in consultation with teachers certified in the academic area for which academic credit is being offered
- provide students with a variety of related work-based learning opportunities
- offer advanced standing, articulated credit, and/or dual enrollment credit from local postsecondary education partners (especially community colleges)
- require an externally-validated written and performance technical assessment and a culminating project

CTE TAC field representatives can also meet with CTE and school leaders to help guide the approval process.

The New York State Education Department website has requirements for CTE program approval.

CTE Electives

Many school districts offer students the opportunity to obtain graduation credits through elective offerings in CTE. The CTE courses chosen as electives may or may not be components of meaningful learning strands that comprise local sequences or part of a CTE Approved Program. Therefore, one student may be taking a particular CTE course as a program requirement while another student is taking the course as a single elective in an area of interest.

CTE courses make high school learning experiences relevant and engaging as students make connections between their academic coursework and potential career goals.

Students enrolled in CTE courses as electives benefit from:

- employability skills in areas such as problem-solving, project completion, work-related communication, time management, and critical thinking skills
- contextualized academics, especially when intentional integration of academic and technical content is a feature of the course
- job-specific skills related to a career area

Work-based Learning

Work-based learning may be part of a CTE program or the sole CTE learning experience for some students. Further information on work-based learning options is provided in Chapter 6.

New Vision Programs

New Vision programs provide the high school senior with an opportunity to learn about a career area of interest while integrating academic and technical courses in an immersive experience. New Vision programs are the direct result of cooperative efforts between education and industry to offer career exploration, rigorous academics, and applied work-based learning. The programs are conducted in part at business/industry sites with emphasis on academic study in a contextualized manner. Students work and learn side by side with professionals. A variety of career areas are represented in New Vision programs, including health, criminal justice, law and government, retail management, biological sciences, education, communications, environmental science, business, and engineering.

Variations in the name and content of this model exist in New York State schools. Program titles include New Visions, Health Academy, Connections, and Allied Health Partnership. New Vision programs are mainly focused on career fields that require a college degree. New Vision program courses, like all courses, must be taught by a teacher certified to deliver instruction in the specific course subject. Consequently, CTE courses included in New Vision programs must be taught by an appropriately certified CTE teacher.

New Vision students spend a portion of each school day in the career setting, where they have both classroom theory and job shadowing experiences. Most New Vision curricula include integration of

senior English and social studies, thus enabling students to meet a portion of their senior requirements for graduation while participating in the program. Typically, a New Vision program grants four units of credit towards graduation requirements, including one credit each for senior English and senior social studies and two CTE credits.

P-TECH

Pathways to Technology Early College High School (P-TECH) is a joint secondary and postsecondary career-focused program. At the secondary level, students prepare for success in postsecondary technical fields. P-TECH programs include CTE courses, work experiences, and direct links to regional employment needs. P-TECH programs offer a unique learning environment that provides students with a degree from a community college and gives them preferential consideration for jobs available with the partnering employer.

P-TECH programs have a broad technological theme, such as information technology, food processing technology, advanced manufacturing, business, health careers, and digital media arts. Students enroll in P-TECH in 9thgrade and continue through earning a high school diploma and an associate degree (usually Associate in Applied Science) and often additional credentials as well. P-TECH program courses, like all secondary courses, must be taught by a teacher certified to deliver instruction in the specific course subject. Consequently, CTE courses included in P-TECH programs must be taught by an appropriately certified CTE teacher. See the national P-TECH website for more information.

Chapter 5: Graduation Requirements

Student readiness for the future has become the focus of discussion by the New York State Board of Regents whenever high school requirements are on the agenda. In the past, preparing students for graduation *from* high school was the goal; today, preparing students to graduate *to* their future is the goal.

The high school years offer academic, developmental, and social experiences that can prepare students with readiness skills in three areas:

- **College readiness**: The student can enter credit-bearing college courses without needing remediation.
- **Career readiness:** The student demonstrates employability and technical skills that allow him or her to be successful on the first day of work in an appropriate entry-level position.
- **Life readiness**: The student has developed the personal and interpersonal skills needed for successful transition from high school to his or her next choice in life. Life readiness includes an array of skills from financial literacy, to advocacy, to civic and social responsibility.

In 2016, after years of study and discussion, the Board of Regents approved a "pathways to graduation" concept that signaled its understanding that for many students, a single path through school was not a means to accomplishing the readiness goals. The pathways concept gives students assessment options for showing that they have met the requirements to earn a high school diploma.

Diploma Requirements

To earn a diploma in New York State, all students must do two things: earn credits and pass assessments. These are separate and distinct requirements and may not always happen simultaneously.

Earning a diploma credit is defined by completing a unit of study (108 hours per year) plus satisfying all locally developed assessments and student work. A student may earn diploma credit for successfully completing a course but fail to meet the corresponding Regents assessment requirement. For example, a student could meet the course expectations for Living Environment to earn the credit but fail the associated Regents exam. The student could decide to retake the Living Environment Regents to earn a passing score and meet the science assessment requirement or decide to move on to another science course and complete the science assessment requirement by passing the Regents exam associated with the new course. Conversely, a student could fail a course and receive no course credit but fulfill an assessment requirement by passing a Regents examination in that course. Both credit requirements and assessment requirements must be met before a diploma can be granted. Part 100 of the Regulations of the Commissioner of Education, specifically Section 100.5, details the high school diploma requirements.

The total number of credits needed and the distribution of those credits are the same regardless of the graduation pathway chosen:

22 Required Credits and Distribution of Credits for All Pathways

- 4 English Language Arts
- 4 Social Studies
- 3 Mathematics

- 3 Science (1 life, 1 physical, 1 additional in either)
- 2 Physical Education
- 1 Languages Other Than English
- 1 Fine Arts
- 0.5 Health Education
- 3.5 Elective (including CTE)

Graduation Pathways

New York State high school students have a choice of six graduation pathways leading to local, Regents, and Advanced Regents diplomas. Students can select from pathways in Humanities, STEM, Languages Other Than English (LOTE), Arts, Career and Technical Education, and Career Development and Occupational Studies.

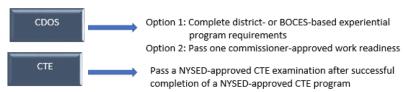
In each pathway, students must be successful on four required Regents exams or their approved alternatives. Additional assessment requirements vary by pathway, thereby offering students some choice in how they will meet diploma requirements.

Assessments Required for All Pathways

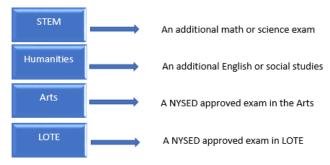
- 1 ELA
- 1 Social Studies
- 1 Mathematics
- 1 Science

Additional Requirements for Each Pathway

Two ways to complete a graduation pathway using CTE



Other ways to complete a graduation pathway



CTE Options for Meeting Graduation Requirements

All CTE courses can be used by all students to satisfy credit requirements in any graduation pathway. Some students opt for a single course or two as electives to try out a CTE area of interest and earn credits toward their total of 22. Other students decide to focus their efforts on an organized sequence of CTE courses contributing to a CTE, CDOS, or STEM graduation pathway.

CTE Pathway

As in all graduation pathways, students choosing the CTE graduation pathway must complete 22 credits in order to graduate. In the CTE pathway, at least 3.5 of these credits are earned through an approved CTE program (see Chapter 4). Students may utilize the assessment flexibility offered by this pathway once they have successfully completed all other components of their CTE Approved Program. Additionally, the technical assessment concluding their approved program must be on the list approved by the Commissioner for this purpose. Schools and BOCES that provide CTE instruction that is not a part of an approved CTE program cannot offer this pathway option to their students.

CDOS Graduation Pathway

The CDOS graduation pathway has two options for students to show they have met diploma requirements. Option 1 is a set of experiential program requirements. Option 2 is a nationally-recognized work readiness assessment approved by the Commissioner for this purpose.

The Option 1 experiential program requirements are:

- documentation of an individual student career plan,
- attainment of commencement level New York State CDOS Learning Standards 1, 2, and 3a,
- 216 hours of CTE coursework taught by a certified CTE teacher, including 54 hours of work-based learning, and
- the development of an employability profile.

Schools that offer CTE coursework which is not yet part of an approved program (or that do not have enough CTE courses to make up an approved program) may offer the CDOS graduation pathway as long as they satisfy the experiential program requirements of Option 1 or provide access to the assessment approved for Option 2.

CDOS pathway Option 1 can benefit students in approved CTE programs because the Option 1 experiential requirements are typically built into approved CTE programs. Students who successfully complete these experiential program requirements of the CDOS diploma pathway through an approved CTE program but do not pass the technical assessment still meet the CDOS graduation pathway requirements to earn a diploma.

CDOS Commencement Credential

The CDOS Commencement Credential is a Board of Regents endorsed exit credential that recognizes the student's readiness for entry-level employment. The CDOS credential is not a diploma.

The CDOS Commencement Credential is awarded to students as they exit their high school experience as either a stand-alone document or as a supplement to a high school diploma. There are two options for students to earn the credential, and they are the same as the two options for earning a diploma through the CDOS graduation pathway (above). Option 1 is the set of experiential program requirements detailed above; Option 2 is the nationally-recognized work readiness assessment approved by the Commissioner.

Students who receive the CDOS Commencement Credential as a stand-alone high school exit credential have met the requirements for the credential but have been unsuccessful in earning the required 22 credits and/or in passing the required assessments to earn a diploma. Students who meet the requirements for the credential and the requirements for a high school diploma can exit with both documents.

The CDOS Commencement Credential is not a local or Regents diploma. The credential alone will not allow students to meet postsecondary requirements for entrance into matriculated programs or allow them to apply for federal financial aid. Students retain their right to continue their public school education through age 21 even if the CDOS Commencement Credential requirements have been met earlier.

STEM Pathway

STEM (Science, Technology, Engineering, and Mathematics) programs are designed to contextualize learning through the intentional integration of concepts from these related fields. Rigorous academic concepts are connected to real-world problems, and solutions are designed and tested by applying science and math concepts through technology. In addition to meeting credit requirements in an approved CTE program or in the elective category, students can use technology education coursework to meet credit distribution requirements for science or math. Commissioner's Regulations 100.5 (b)(7)(iv)(j) states that, "A commencement level course in technology education may be used as the third unit of credit in science or mathematics but not both." Schools that use this regulatory flexibility when building STEM programs open scheduling opportunities for students that would not be possible otherwise.

CTE Courses to Meet Other Graduation Credit Requirements

CTE coursework can be used to satisfy graduation credit distribution requirements beyond the 3.5 credits allocated to electives. When schools and BOCES use these flexibilities, students have opportunities to study areas of interest in greater depth, to include advanced study in pathway areas, to spend extra time on studies that have proved to be a struggle, and to access learning experiences that occur in the community.

Integrated Academic Credits

Schools and BOCES that have Approved CTE programs can offer students up to eight units of integrated academic credit through the approved program. According to Commissioner's Regulation 100.5, an integrated CTE course combines CTE and academic commencement level learning standards and may be jointly developed and taught by an academic subject teacher and/or a CTE teacher. Successful completion of one unit of study in an integrated CTE course may be awarded only one unit of credit but may be used to meet the distribution requirements in more than one subject. For details on this option, please see Commissioner's Regulations 100.5(d) (6) Diploma Requirements and Expansion of Integrated Credits in Approved CTE Programs.

Specialized Academic Credits

Any school district or BOCES technical center that has CTE courses, whether approved programs or not, can develop courses that contextualize academics through a CTE content lens. According to Commissioner's Regulation 100.5 (b), a specialized course develops the subject in greater depth and/or breadth and may be interdisciplinary. This regulation allows school districts to develop the specialized courses that are most valuable for their students, bringing relevance to academic concepts through real-world CTE content. While the individual nature of specialized courses makes provision of an exhaustive list impractical, some examples of specialized courses include:

- Math and Financial Applications (business and marketing education/math)
- Corporate Communications (business and marketing/English language arts)
- Food Science (agricultural education or family and consumer sciences education/science)
- Broadcast Journalism (trade and technical education/ English language arts)
- Forensics (technical education/science)
- Health Issues Across the Life Cycle (health science education/science)
- Literature for Early Childhood (family and consumer sciences education / English language arts)
- Pre-Engineering (technology education/math or science)
- Student Leadership Education (all CTE content areas/social studies)

Again, successful completion of one unit of study in a specialized course may be awarded only one unit of credit but may be used to meet the distribution requirements in more than one subject. For details on this option, please refer to Commissioner's Regulations 100.5 (d) (6) Diploma Requirement.

A few CTE options are approved at the state level as substitutes for meeting graduation requirements in subject areas for which specific content requirements exist. They are:

Fine Arts

Specific courses in technology education and family and consumer sciences education can be used to satisfy the one unit graduation requirement in the fine arts for all students. Design and Drawing for Production (DDP) is an approved technology education course to meet the one unit of art/music graduation requirement for all students. Teachers certified in art education or technology education may provide instruction in DDP used to meet the art/music credit, which may then be used as part of the technology education curriculum or as part of the art education curriculum. To fulfill this requirement, the course of study must use the state developed DDP syllabus in its entirety. For details on this option, please see New York State Education Department information on technology education and Design and Drawing for Production.

In family and consumer sciences education, the Clothing and Textiles Core course (.5 unit) and the Housing and Environment Core course (.5 unit) have been designed to meet the commencement level learning standards in the arts: Visual Arts. When both Clothing and Textiles Core and Housing and Environment Core are completed, they are an approved substitution for the one-unit fine arts graduation requirement for any student. For details on this option, refer to New York State Education Department information on family and consumer sciences education in high school.

Health Education

In health science education, the Health Occupations Core course can be used by health sciences students to satisfy the .5 unit requirement for health education.

Social Studies

Student activities in a Career and Technical Student Organization (CTSO) can be used to satisfy the .5 unit of Participation in Government required in grade 12. For example, the agriculture CTSO, FFA has developed this option for its members detailed in their publication: Earning Government Credit Through FFA and the New York State FFA Organization. A resource for suggestions on using CTSO activities to satisfy Participation in Government is available in A Guide for Using Occupational Education Student Leadership Development Activities for Participation in Government Credit

As an example, the agriculture CTSO, FFA, has developed an option for its members. For details, please see Earning Government Credit Through FFA.

Chapter 6: Work-based Learning

Work-based learning (WBL) is a term that applies to an array of learning experiences, from career awareness and exploration to career development and application. WBL learning activities take place in the workplace or in the school in collaboration with the community to provide a service or produce a product that meets industry standards.

Registered work-based learning programs must be under the supervision of a New York State certified work-based learning coordinator. It is highly recommended that all WBL activities that place students in the community, whether registered or not, be under the supervision of a New York State certified WBL coordinator for the safety and protection of the student and employer.

Registered Work-based Learning Options

The programs described below must be registered with the New York State Education Department and must be coordinated by CTE teachers who possess a WBL coordinator extension on their teaching certificates. The chart that follows includes the required extensions for each program.

The New York State Education Department Work-based Learning Manual provides information on teacher certification requirements, the program registration process, and all other aspects of WBL activities. For additional information regarding transition planning and services for students with disabilities, including the development and implementation of career planning and WBL opportunities for them, contact the transition specialists of the Regional Special Education Technical Assistance Centers.

Career Exploration Internship Program (CEIP)

The Career Exploration Internship Program is a school-business partnership initiative that provides high school students, age 14 and above, the opportunity to obtain unpaid, on-site career exploration experiences. The focus of the program is meaningful hands-on career exploration rather than skill development. Students may earn ½ to 1 unit of elective or CTE sequence credit.

Cooperative Career and Technical Education Work Experience Program (CO-OP)

The Cooperative CTE Work Experience Program is for students age 16 and above. It is school supervised and consists of 150 to 600 hours of paid or unpaid work experience, supported by related in-school instruction in a specific CTE discipline. Students may earn ½ to 2 units of credit towards a CTE sequence, depending upon the specific sequence.

General Education Work Experience Program (GEWEP)

The General Education Work Experience Program is for non-CTE students age 16 and above. The program consists of 150-600 hours of paid or unpaid, supervised work experience, supported by the equivalent of at least one classroom period a week of related instruction. Students typically earn ½ to 2 units of credit.

Work Experience and Career Exploration Program (WECEP)

The Work Experience and Career Exploration Program is an initiative sponsored by the U.S. Department of Labor and New York State Education Department. It is similar in design and operation to the General Education Work Experience Program but is designed specifically for at-risk students age 14-15 and is paid. Students typically earn ½ to 1 unit of credit.

Comparison of Registered Work-based Learning Options

Characteristic	Career Exploration Internship Program (CEIP)	Cooperative CTE Work Experience Program (CO-OP)	General Education Work Experience Program (GEWEP)	Work Experience and Career Exploration Program (WECEP)
Certification WBL coordinator extension	Coordinator of WBL Programs for Career Development	Coordinator of WBL Programs for Career Development	Coordinator of WBL for Career Awareness or Career Development	Coordinator of WBL for Career Awareness or Career Development
Student age	Grades 9-12	Age 16+	Age 16+	Age 14-15
Paid or unpaid	Unpaid	Paid and unpaid	Paid and unpaid	Paid
Diploma credit permissible/ worksite hours	.5/54 hrs. 1/108 hrs.	.5/150 hrs. 1/300 hrs. 1.5/450 hrs. 2/600 hrs.	.5/150 hrs. 1/300 hrs. 1.5/450 hrs. 2/600 hrs.	.5/150 hrs. 1/300 hrs.
Related instruction	27 hrs./.5 credit 54 hrs./1.0 credit	5 periods per week	At least 1 period per week	At least 1 period per week
Experience must relate to classroom instruction	Yes	Yes	No	No
Develops career skills	No — focus is career exploration	Yes	Yes	Yes

Notes

- Students should not be placed in a business that does not carry Workers' Compensation insurance.
- Students participating in paid work experiences must be covered by the employer's Workers' Compensation insurance.
- Credit earned in CEIP can be applied toward a 5-unit CTE sequence.

Non-registered Work-based Learning Options

Following are types of work-based learning, but do not require registration.

Community-Based Work Programs (for students with disabilities)

For students with disabilities, beginning with the first individualized education program (IEP) in effect when the student is 15 (or younger if determined appropriate), the IEP must identify the student's post-school goals based on the student's preferences and interests and the coordinated set of transition activities designed to assist the student in attaining those goals. The coordinated activities are the transition services/activities the student will need to facilitate his/her movement from school to post-school activities, including instruction, related services, community experiences (such as community-based work experiences), employment, and other post-school living objectives and, if appropriate, activities of daily living and functional vocational assessment. To participate in community-based work programs, students may require support services and accommodations, which would be specified in their IEP. Examples of such supports and accommodations may include but are not limited to: job coach, interpreter services, orientation and mobility training, physical modifications to a work station, and assistive technology.

Job Shadowing

Job shadowing is a career exploration activity for late middle level or early high school students. The student follows an employee for an observation-only experience at a workplace for 1 to 8 hours to learn about an occupation or career pathway of interest. These are observation experiences; no credit is issued to the student for participation.

Community Service/Volunteering/Service Learning

In community service, students participate in volunteer experiences that teach responsibility, community involvement, and an awareness of the needs of others. Community service does not directly connect to the knowledge and technical skills learned in the classroom. No credit is issued to the student for participation in these activities.

Service learning is differentiated from community service/volunteering. Service learning is community service that directly connects to the knowledge and skills learned in classrooms. In service learning, the interwoven service and learning outcomes derive from a singular, distinct pedagogy.

School-based Enterprise

A school-based business enterprise exists to provide services for students and/or staff and the community within the school. No additional credit is awarded for participation in this experience; the credit exists within the related course. Examples of a school-based enterprise are a store or credit union.

Career-focused Research Project

The career-focused research project is primarily a research paper designed for students to explore possible career interests. It serves as a guide for the student to learn about the college preparation and skills training needed to be successful in a specific career pathway. This project could be developed within an existing course or as an independent study for ½ unit of credit. It is recommended that the teacher of record be a certified CTE teacher.

The New York State Work-based Learning Manual recommends non-registered WBL programs include the following components:

- a certified teacher or guidance counselor with the proper work-based learning career awareness/development extension overseeing the learning experience
- an appropriate worksite placement with supervised on-the-job training
- related in-school instruction and a training plan
- coordination of in-school and worksite components
- student evaluation
- a copy of student working papers for worksite placement
- a memorandum of agreement with the worksite.

Comparison of Non-registered Work-based Learning Options

Characteristic	Community- based Work Program	Job Shadowing	Community Service & Volunteering	School-based Enterprise	Career- focused Research Project
Supervising agency	Local school district	Local school district	Local school district	Local school district	Local school district
WBL coordinator extension	*Optional	Optional	Optional	Optional	Optional
Student age	Grade 9-12	Grade 9-12	Grade 9-12	Grade 9-12	Grade 9-12
Paid or unpaid	Paid and unpaid	Unpaid	Unpaid	Unpaid	Unpaid
Diploma credit allowable	No	**No	**No	**No	**No
Related classroom instruction	Optional	Optional	Optional	Yes	Yes
Experience must relate to career interests	No	No	No	Optional	Optional
Training must develop job skills	No	No	No	No	No

Notes

Individuals who hold the Coordinator of WBL Programs Career Awareness **or** Career Development extension may supervise any unregistered WBL option.

Workers' Compensation Insurance

New York State Education Department strongly recommends that students participating in any registered or non-registered WBL program be placed in businesses that carry Workers' Compensation insurance. Students participating in paid WBL experiences are required to be covered by the business's Workers' Compensation Insurance Policy.

^{*} It is recommended that a certified WBL coordinator oversee the Community-Based Work Program, but it is not required.

^{**} No extra credit is given as the credits exist within the coursework.

Pursuant to the provisions of Workers' Compensation Law (WCL) Section 3, Group 19, a BOCES or school district could bring its students within the confines of the WCL and secure workers' compensation coverage for them while they are performing paid work in their student capacity for an employer partnering with a BOCES/school district.

Whether an employer/employee relationship exists is a factual issue for the Workers' Compensation Board. In making such a determination, the Board will generally consider factors such as who retains the right to control the work and set the work schedule, the method of payment, the furnishing of equipment, the right to discharge, and the relative nature of the work at issue.

WBL and the CDOS Graduation Pathway and CDOS Commencement Credential

In June 2016, the Board of Regents approved the establishment of the Career Development Occupational Studies graduation pathway for all students. Under the CDOS pathway option, students may graduate with a high school diploma if they meet the graduation course and credit requirements established in Section 100.5 of the Commissioner's Regulations *and* have met the experiential program requirements to earn a diploma under CDOS pathway Option 1 (see Chapter 5). Work-based learning is a required component of this option.

The CDOS Commencement Credential is a Board of Regents endorsed credential that recognizes students' readiness for entry-level employment. The CDOS Commencement Credential is awarded to students as they exit their high school experience as either a stand-alone document or as a supplement to a high school diploma (see Chapter 4). Work-based learning is a component for satisfying the requirements under Option 1 for this credential.

A field advisory details all the components of the CDOS graduation pathway and the CDOS credential.

Chapter 7: Serving Special Populations

Students with Disabilities

The Career Development and Occupational Studies learning standards specify that all students should have access to curriculum that will further their knowledge and skills in preparation for work and life settings. Public policy addressed in legislation, such as the Every Student Succeeds Act (ESSA), Individuals with Disabilities Education Act (IDEA), Workforce Investment Act (WIA), and Rehabilitation Act Amendments of 1998, requires greater collaboration within and across services to ensure that all individuals have improved opportunities to participate in effective career education programs and to achieve personal career goals.

IDEA mandates that all students with disabilities have access to the general education curriculum, including career and technical education and assessments. Students with disabilities can achieve great success in CTE programs.

To enable all students with disabilities to participate in general education activities, instructional modifications and support services must be provided. A continuum of support services needs to be available to assist every student to have a meaningful educational experience. Students with disabilities, like their non-disabled peers, must have access to the full range of tests and examinations to the extent appropriate. Also, they must receive testing accommodations as specified in their Individualized Education Program (IEP). Refer to the New York State Education Department website for more information on special education services and requirements.

Transition Programs and Services

One key to the success of students with disabilities in CTE programs is the care with which the transition plan is developed and implemented. The purpose of transition programs and services is to prepare students with disabilities to live, learn, and work within the community by providing them with career and life skills, knowledge, and experiences. Transition planning, like career planning, focuses attention on how the student's educational program can be planned to help the student make a successful transition to life after high school. Transition planning is a required part of developing and updating a student's IEP. Career planning, CTE programs, and work experience should be integral components of transition planning. Refer to Commissioner's Regulations Part 200.4 (d) (2) (ix) for requirements on transition services.

Access to the Student's Individualized Education Program (IEP)

The school district's Committee on Special Education (CSE) must ensure that all general education teachers (including CTE teachers), special education teachers, related service providers, other service providers, paraprofessionals, and support staff who will work with a student with disabilities are provided a copy of the student's IEP. Each person must also be informed, prior to the implementation of the IEP, of his or her responsibility to implement the IEP recommendations, including the responsibility to provide specific accommodations, program modifications, supports, and/or services for the student in accordance with the IEP. This information should be provided to any teacher who will be working with

that student at any location, including the school, BOCES technical center, and other settings. Refer to Commissioner's Regulations Part 200.2 (b) (11) for requirements on access to the IEP.

Reporting Progress to Parents

Parents must be informed regularly of their child's progress toward meeting the annual goals specified on the IEP and the extent to which progress is sufficient to enable achievement of the goals by the end of the year. These reports must be made at least as frequently as the general education reports and are in addition to the school report cards. The reports to parents do not need to be lengthy, but they do need to be informative.

Establishing measurable goals is important so that progress can be adequately assessed. To report progress, each of the student's teachers must gather evidence of what the student is able to do in each goal area. CTE, general, and special education teachers need a method for collecting and reporting this information. Ongoing communication and coordination are essential to both developing the IEP and reporting student progress.

Involvement by CTE teachers is necessary at all points to guarantee that appropriate goals and benchmarks specific to the CTE program are included in the IEP. The work skills employability profile is an important tool to use in the development of the IEP, as well as for providing periodic progress reports. Refer to Commissioner's Regulations Part 200.4 (d) (2) (iii)(c) for requirements on reporting progress.

CTE and Special Education Collaborative Planning

Communication between CTE teachers and administrators and special education directors and staff will improve opportunities for all students to participate successfully in CTE programs. Some suggestions to foster communication are listed below.

- CTE directors and Committee on Special Education (CSE) chairpersons meet to discuss all CTE program offerings, identify skills that each student needs to be successful in each program, and follow the fundamental principles of Career Development and Occupational Studies learning standards and the career plan. Access and accommodation provisions should be discussed at this time. Safety considerations should be an integral part of determining placement of a student with disabilities in any CTE program. All CTE students are required to meet safety standards at all times. Frank discussion and special attention should be given to assessing safety where student behavior might constitute a significant safety risk.
- CTE program directors and CSE chairpersons establish a communication agreement regarding:
 - the method for CTE instructors to attend a student's IEP planning meetings to discuss CTE courses and course requirements and make appropriate plans to help the student participate successfully
 - the process for special education personnel to make student referrals to CTE programs, including providing information to the CTE program before the student starts the course to optimize the student's learning experience and success. This includes: informing the CTE instructor of the student's course learning objectives; recommending classroom

- management strategies along with supports needed from the instructor; and planning arrangements for special education services that will be provided to the student (e.g., aides, consultant teachers, related services, and integration of learning objectives with core courses)
- mechanisms for the CTE teachers to communicate information to the special education teachers about student progress in CTE, any need for problem-solving strategies, and student accomplishments upon completion of the course
- initiatives to build capacity to enable CTE programs to accommodate students with disabilities, including staff development, curriculum modifications, differentiated instruction, and environmental modifications.
- The CTE staff includes the CSE chairperson in the annual assessment of student performance to share information about the student's strengths, needs, and abilities in relation to eventual transitions to employment, community living, and/or postsecondary education.
- The CTE program's employability profile and/or the generic CDOS employability profile is shared as a formative assessment to help determine appropriate IEP goals, modifications, and supports.

CDOS Commencement Credential/Graduation Pathway

The CDOS Commencement Credential is a Board of Regents endorsed credential that recognizes a student's readiness for entry-level employment. The CDOS Commencement Credential is awarded to students as they exit their high school experience either as a stand-alone document or as a supplement to a high school diploma. All students can earn the CDOS credential and use it in the CDOS graduation pathway as a way to earn a high school diploma. While special education students must be given full access, and every opportunity, to earn a high school diploma, the CDOS credential may be an option for students who are not able to meet all of the diploma requirements.

There are two ways to earn the CDOS Commencement Credential: (Option 1) through completing a variety of career planning activities alongside CTE courses and/or work-based learning experiences; or (Option 2) through passing an approved, externally-validated assessment that covers employability skills (see Chapter 4). Students who receive the CDOS Commencement Credential as a stand-alone high school exit credential have met the requirements for the credential but have been unsuccessful in earning the required 22 credits and/or in passing the required assessments to earn a diploma.

Districts must ensure that fewer than 20% of students with disabilities within a graduation cohort use the CDOS Commencement Credential as a stand-alone exit credential. New York State Education Department may require districts that exceed this cap to redirect special education funds to ensure that students have equitable access to earning a high school diploma.

The CDOS Commencement Credential is not a local or Regents high school diploma. The credential alone will not allow students to meet postsecondary requirements for entrance into matriculated programs, nor allow them to apply for federal financial aid. Special education students' opportunities to continue their public school education through age 21 remain available even when the CDOS Commencement Credential requirements are met earlier. Students who meet the requirements for the credential and for a high school diploma can exit with both documents.

Special education students with the most severe disabilities who show their attainment of New York State Learning Standards through the New York State Alternate Assessments (NYSAA) are not eligible for the CDOS credential or graduation pathway.

The New York State Department of Education website has an extensive FAQ on the CDOS Commencement Credential.

English Language Learners

English language learners (ELLs) are students whose home or primary language is other than English and who need support in reaching English language proficiency. ELLs are not only developing English skills, but also becoming bi-literate or, in some cases, multilingual (MLL). ELLs are entitled to access to the general education curriculum, including CTE.

Part 154 of the Commissioner's Regulations holds all school districts accountable for identifying and serving ELLs. Districts are required to adopt a policy on the education of ELLs, plan and provide appropriate services for them, and evaluate and report their academic achievement. Several models for providing instructional programs for ELLs are available; school districts can select the model(s) most appropriate to their communities and students' needs. CTE can be included in the ELL instructional design chosen; see New York State Education Department School District/LEA Resources. Instructional programs for ELLs are funded primarily through local funds but are supplemented by state bilingual categorical funds and funds from federal sources.

The federal Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) provides grants to improve the quality of CTE. The Perkins IV legislation requires that certain assurances be provided by local recipients to help ensure student success. These assurances include: curriculum adaptation; career development counseling; assessment of interests, abilities, and special needs; and other services to facilitate transition of students from high school CTE programs to work or postsecondary education.

Perkins also requires that recipients fund activities that prepare special populations for high skill, high wage, or high demand occupations that lead to self-sufficiency. ELLs enrolled in CTE, one of the Perkins-defined special populations in Perkins IV, have been historically under-represented in CTE enrollment. Perkins recipients can use funds to benefit ELLs by:

- supplementing staff, including adding instructors, technicians, aides, tutors, signers, note takers, and interpreters
- offering in-service and preservice training to CTE teachers targeting effective research-based practices for working with ELL students, including practices to improve parental and community involvement and making effective use of data to improve instruction
- providing services to improve access to CTE programs and services, including curriculum modification, equipment modification, classroom modification, and instructional aids and devices.

The proposed blueprint for the reauthorization of the Perkins Act suggests that in the future, recipients will have to provide supports, such as academic and wrap-around services, to ELLs so that they are prepared to succeed in CTE programs and challenging careers after graduation.

Chapter 8: Technical Assessments and Credentials

Technical Assessments

Student assessments in CTE, usually referred to as technical assessments, measure the acquisition of technical skills and knowledge. Technical assessments usually have a written and a performance component where students demonstrate physical skills and/or produce a culminating project.

Technical assessments serve multiple purposes for students in CTE programming including:

- 1. **Final Exam:** A technical assessment may serve as the final assessment for a course/program conveying credits toward a diploma.
- 2. **CTE Approved Program:** All Approved CTE programs must include a technical assessment that is nationally recognized and based on industry standards.
- 3. **Diploma Pathway:** The Regents diploma requires four Regents exams plus one additional exam. state-approved CTE technical assessments may be used by CTE students to satisfy the fifth exam requirement. (See Diploma Pathway Assessments section below.)
- 4. **Industry Certification:** Technical assessments can also be a requirement for earning an industry credential or certificate.

There may be situations where the CTE technical assessment can simultaneously meet all of these purposes. However, some assessments may only satisfy one or two of them.

CTE Approved Program Assessments

The Regents policy on CTE program approval requires that students pass a three-part technical assessment consisting of a written examination(s), student project(s), and student demonstration(s) of technical skills. Some programs measure technical proficiency using written and practical assessment components from different sources (e.g., Automotive Service Excellence for the written and NOCTI for the practical). Students who meet or exceed the cut score on each component of the technical assessment (in addition to successfully completing all other requirements of the CTE Approved Program) earn a technical endorsement on their diplomas.

The New York State Education Department does not recommend specific technical assessments. Local agencies, in collaboration with industry advisory committees, select appropriate assessments as a part of the program approval process. If no assessment exists in a particular technical field, a school district may form a consortium of local, regional, or national businesses or related professional organizations to create one.

For more information, refer to Implementation Guide on the New York State Education Department Program Approval Process or the Perkins-funded CTE Technical Assistance Center (under contract with NYSED) Program Approval Resources.

Graduation Pathway Assessments

The CTE pathway is one of the six graduation pathways from which students may choose. Diploma requirements for all six pathways require that students pass four required Regents exams or their approved alternatives. An additional assessment, specific to the pathway chosen, is also required (see Chapter 5).

Students wishing to make use of the CTE pathway option must successfully complete an approved CTE program, which includes a three-part technical assessment that has been approved by New York State Education Department. Students who complete the approved program and pass the technical assessment have fulfilled the CTE pathway graduation requirements. The list Approved Pathways Technical Assessments identifies the technical assessments that can be used in this option. If the approved program assessment does not appear on the list, it may not be used to complete a CTE pathway.

Industry Certifications and Assessments

Industry advisory committees and employers can be particularly valuable in identifying appropriate certifications that should be connected to the CTE program. The following are some resources for industry certifications and assessments that schools might consider for various programs.

- The National Career Clusters Framework, developed under the leadership of AdvanceCTE, has sample programs of study in most career pathways. Descriptions of the 16 Career Clusters contain a list of relevant credentials and links to resources on other industry credentials.
- The U.S. Department of Labor maintains a Certification Finder as part of its career exploration tools. This tool permits users to search for industry credentials in various fields.
- Virginia maintains an extensive list of industry-based assessments.
- National Occupational Competency Testing Institute (NOCTI) is an assessment organization
 that was created to provide technical assessments for secondary CTE programs at a time
 when very few were available. Several of its assessments are co-sponsored by industry
 associations.
- SkillsUSA Assessments are from SkillsUSA, a national organization serving teachers and high school and college students who are preparing for careers in technical, skilled, and service occupations, including health occupations. The organization, whose initial focus was to sponsor CTE student technical skills competitions, has now developed several technical assessments.

Workplace Readiness Assessments

In addition to specific content area technical assessments, there are a number of CTE assessments that focus more broadly on work readiness. These assessments vary in the specific knowledge or skills they assess, and some have been approved for use by students seeking a CDOS Commencement Credential using Option 2 (see Chapter 5). Refer to the New York State Education Department website for current assessments. Examples include:

- ACT WorkKeys The assessment group, ACT, offers a National Career Readiness Certificate based on its WorkKeys®—a series of assessments that measure real-world "hard" and "soft" skills.
- National Work Readiness Credential National Work Readiness Council, a consortium of businesses, unions, chambers of commerce, education and training professionals, and state workforce investment boards, offers a Work Readiness Credential based on its assessment. The assessment measures situational judgment, oral language, reading with understanding, and using math to solve problems.
- Workforce Skills Certification System The Comprehensive Adult Student Assessment System
 (CASAS), a nonprofit organization, focuses on assessment and curriculum development that
 targets basic skills for youth and adults. The CASAS Workforce Skills Certification System offers a
 way to document technical and employability skills including functional reading and math levels.
- **SkillsUSA** SkillsUSA offers an employability readiness assessment.

Chapter 9: Federal and State Funding for CTE

Carl D. Perkins Career and Technical Education Improvement Act of 2006

The federal Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) provides grants to improve the quality of career and technical education. These funds are administered and distributed through the New York State Education Department following federal guidelines. Applications for Perkins IV funds must describe how grant monies will support CTE program improvements or innovations that:

- integrate rigorous academics with career and technical instruction
- link secondary education and postsecondary education to prepare students for high-skill, high-wage, high-demand jobs in current or emerging occupations
- enable participating students to meet or exceed performance standards emphasized by Perkins IV.

[Note: congressional authorization for Perkins IV expired in 2013. As of March 2018, Perkins reauthorization was still pending. Perkins V may change measurement definitions and requirements discussed below. Reauthorization information is available at the Perkins Collaborative Resource Network.]

Eligible Secondary CTE Programs

Perkins funds are allocated by a statutory formula that is based upon the number of individuals ages five to 17 in a school district, with greater weighting given to those individuals who are below the poverty line. The source is Small Area Income and Poverty Estimates from the most recent U.S. Census data available. Districts and consortia seeking to access Perkins IV funds directly must meet the requirements of size, scope, and quality that include:

- 1. allocations equal to or above \$15,000
- 2. programs in at least three of the 16 national career clusters
- 3. enrollment that consists of:
 - a. at least 20% of the general population in CTE

or

b. at least 20% of special populations in CTE (Perkins special populations: students with disabilities, students from economically disadvantaged families including foster children, non-traditional students; single parents; and English language learners)

or

- c. at least 40% of special population members in the general population and
- d. offer at least three New York State Approved CTE programs.

The following links provide additional information:

Overview for first time applicants

Application guidance

Boards of Cooperative Educational Services (BOCES)

A BOCES is a public educational organization that provides shared programs and services to school districts. BOCES owes its origin to a state legislative enactment authorizing the formation of intermediate school districts. Passed in 1948, the act was aimed at enabling small rural school districts to combine their resources to provide services that otherwise would have been uneconomical, inefficient, or unavailable.

BOCES Service Delivery

Each BOCES is a regional organization that provides quality educational, administrative, and technical services to component school districts to enhance educational opportunities for students and cost-effectiveness of the educational system. The component districts own the BOCES. BOCES cannot tax or earn state aid, although they do prepare aid claims on behalf of the component districts and receive state aid payments for them.

Participating districts can use programs offered by a BOCES. They do not have to be a component to participate in programs, but they are required to pay for their costs. A district may be a component of one BOCES and participate in the services of a different BOCES. BOCES also cross-contract with one another. The structure to manage these programs is the Cooperative Service Agreement, or CO-SER. CO-SERs can be a mechanism to fund CTE when providing shared instructional services. Each CO-SER is assigned a three-digit numeric code, called the program serial number. This number is used by the BOCES and New York State Education Department.

Program Serial Number Ranges

Service Program	Program Serial Numbers
Career and Technical Education	101 – 199
Special Education	201 – 299
Itinerant (All)	301 – 399
General Education	401 – 499

The BOCES Administrative Handbook General Guidelines and Procedures for CO-SER Preparation provides information on the process.

Chapter 10: Reporting CTE Student Data

Data tells the story of career and technical education in New York State. With complete and reliable data, stakeholders can illustrate the contribution that CTE makes to student and district success in meeting educational goals. Sharing information on CTE student and program outcomes generates recognition and support at state and local levels.

Data reporting about student participation in CTE takes place in each school district in the state. Districts identify and report on CTE students in their own high schools and in the BOCES technical centers.

Identifying CTE Students

CTE data reporting begins with identifying CTE students. CTE students are those enrolled in a course taught by a certified CTE teacher where students acquire knowledge and skills in one of New York's six CTE content areas: agricultural education, business and marketing education, family and consumer sciences education, health science education, technology education, and trade and technical education.

CTE programs are comprised of at least three CTE courses (equivalent to three full units of study) that form a meaningful sequence and incorporate the Career Development and Occupational Studies learning standards. CTE students may be enrolled in a local high school, BOCES technical centers/CTE high school, approved high school equivalency program with a CTE program, or alternative education with a CTE program.

Who Reports CTE Student Data

The school district in which the student is enrolled is responsible for reporting CTE data to the state data warehouse: the Student Information Repository System (SIRS). Districts report on all CTE students (i.e., those served in their own high schools as well as those attending BOCES or other out-of-district providers, including another district). Administrators of BOCES technical centers should work with sending high school staff to ensure that the district accurately reports CTE enrollments.

Some data needed for CTE reporting is already being collected in SIRS for other required reporting. Indicators like performance on the English and math Regents exams and graduation rate are collected for federal programs (e.g., ESSA). Indicators such as performance on technical assessments or post-program outcomes are specific to the state requirements for Approved CTE programs and to the federal requirements of the Perkins IV. CTE data reporting is required of all districts and schools that send students to BOCES Technical Centers or offer CTE courses.

Students Who Must Be Included on CTE Program Records

Students enrolled in any CTE class who are in a high school diploma-granting program or an approved high school equivalency program must have a CTE program service record. These records track CTE Program Type through the Classification of Instruction Programs (CIP) code, CTE program intensity (enrollee, participant, or concentrator), service provider location, courses taken by the student, and

teacher linkage information. A list of CTE program service codes is found in the SIRS Manual and on the CTE data webpage.

Districts have flexibility in their definition of a CTE *program* but not a CTE *class*. A CTE class is taught by a CTE certified teacher where students learn content from one of New York's six CTE content areas and acquire academic and technical skills through hands-on learning. A program service record is needed for all students who take a CTE class for which they earn credit.

Some New Vision programs may appear to be part of a CTE content area (e.g., health science) but students are usually not receiving CTE credit; frequently, the programs are delivered by teachers certified in areas other than CTE. In cases when the teacher is certified in a CTE content area, it must be confirmed that the students are earning CTE credit.

Unlike CTE programs at the BOCES, local high school CTE programs often cross content areas and may not be predefined or linear in nature. They may be comprised of courses from one of the six CTE content areas or from a combination of these content areas. When there are questions about entering CTE data for submission to the SIRS, districts can contact their Regional Information Center (RIC) for technical assistance.

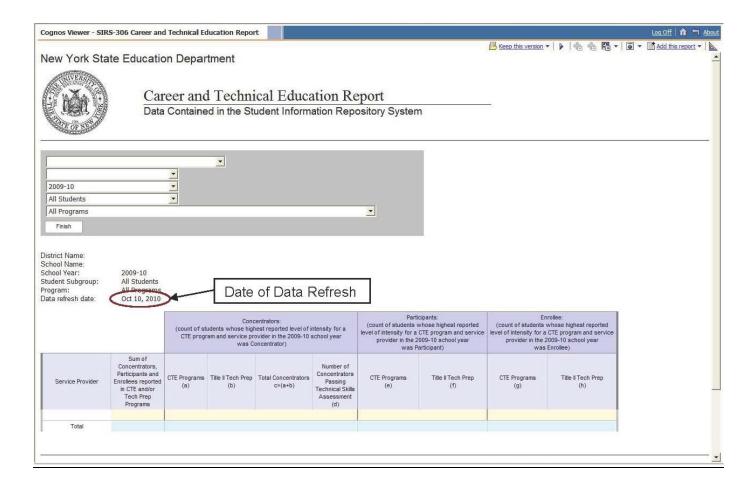
Verifying CTE Data Submission

CTE data can be verified in SIRS by accessing the Career and Technical Education Level 2 (L2RPT) report. This report allows administrators to review CTE data as it appears in the SIRS statewide "Level 2" data warehouse. Data found in this report is disaggregated by district, service provider (school or BOCES), and program. Drilling down from the summary reports shows student-level data.

NOTE: The L2RPT reports are hosted regionally by a Regional Information Center (RIC)/Big 5 Level 1 data center (or other hosting site) on their own server. Because all L2RPT environments are independently maintained, variations exist. Please consult the main L2RPT Report Guides for general instructions, including how to obtain a user ID and password through the State Education Department Delegated Account System (SEDDAS) to gain this access. If you have trouble accessing your reports or need guidance, please contact the appropriate L2RPT support contacts at your RIC.

Sample SIRS 306 CTE Report

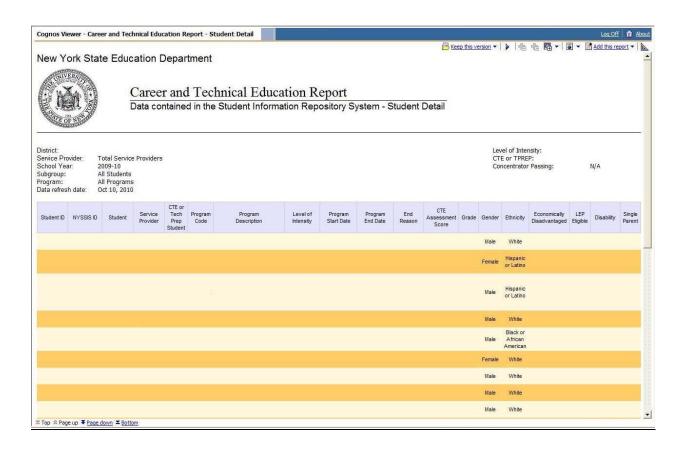
A BOCES, district, or school summary report provides a quick view of enrollments by locations and counts of students passing a technical assessment.



Student Detail Report

The detail report provides a view of enrollment, program type and New York State Education Department approval status, program provider, demographics, and technical assessment performance. The detail view gives staff completing data and administrators a way to identify reporting errors. Common errors found are:

- incorrect designation as an approved CTE program (program code ends in "E" for endorsement)
- incorrect service provider: students attending BOCES but listed with home school as service provider location
- duplicate records: setting up more than one record for a student who takes multiple CTE courses in the home school
- not reporting technical assessment results



Further information is available on the New York State Education Department CTE Data page.

Chapter 11: CTE Teacher Certification

Requirement for Certified Teachers

All teachers employed in the public schools in New York State must hold a valid certificate issued in accordance with Section 3001 Education Law Part 80 of the Commissioner's Regulations.

§ 3001. Qualifications of teachers. No person shall be employed or authorized to teach in the public schools of the state who is:

- 1. Under the age of eighteen years.
- 2. Not in possession of a teacher's certificate issued under the authority of this chapter or a diploma issued on the completion of a course in state college for teachers or state teachers college of this state.

Types of Certificates

There are several types of certificates for teachers:

- Transitional Certificate: A certificate issued to permit the employment of an individual in a specific career and technical education title in a school district or BOCES who does not meet the requirements for an Initial Certificate, but who possesses the requisite occupational experience.
- **Initial Certificate**: A certificate issued as the entry-level certificate for teachers valid for five years.
- **Professional Certificate**: A certificate issued as the advanced-level certificate for teachers, continuously valid with completion of required professional development hours within a five-year professional development cycle.

More detail on certificates and options is available at the New York State Office of Teaching Initiatives.

In the New York State Education Department certification system, career and technical education titles are found in two different categories: **Classroom Teacher** and **Career and Technical Education Teacher**. The primary difference between certificate holders in these two categories is the route to subject matter expertise which qualifies them for New York State teacher certification. Classroom Teacher certificates require academic preparation as the route to subject matter expertise; CTE teacher certificates require work-world experience in the field of the certificate to qualify for certification. Teachers earning Classroom Teacher certificates in CTE can teach courses in their content areas to students in grades P-12. Teachers earning Teacher CTE certificates can teach courses in their certificate area to students in grades 7-12.

Classroom Teacher Certificates (P-12)

Following are the categories of Classroom Teachers certificates eligible for teaching related CTE programs and courses. Each is based on earning Initial and Professional certificates based on successful completion of a bachelor's degree including at least 30 semester hours of credit in that subject:

- Agricultural Education
- Business and Marketing Education

- Family and Consumer Sciences Education
- Technology Education

CTE Teacher Certificates (7-12)

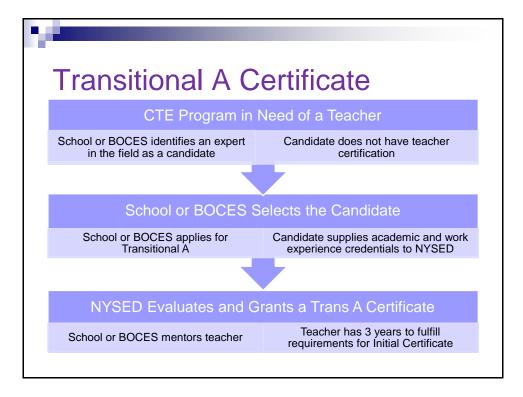
There are over a dozen general certification categories in CTE. Within each, a number of specific certificate titles are offered. The general categories are:

- Agricultural Occupations
- Aviation/Aerospace Occupations
- Manufacturing & Repair Occupations
- Construction Industry & Building Maintenance Occupations
- Cosmetology Occupations
- Drafting Occupations
- Electronic/Electro-Mechanical Occupations
- Family & Consumer Sciences Occupations
- Food Service Occupations
- Graphic Printing & Visual Communications Occupations
- Health Occupations
- Motorcycle, Marine & Outdoor Power Equipment Occupations
- Performing Arts Occupations
- Precision Metal Work Occupations
- Technical Occupations
- Vehicle Maintenance & Repair Occupations
- Other/Unique & Emerging Occupations

Transitional Certificates

In 2013, the Board of Regents began addressing the concerns of school districts and BOCES experiencing difficulty in finding and retaining CTE teachers. Shortages in other subject areas have also worsened, but CTE experiences additional pressure created by the unique skill sets required of teachers. The emergence of new occupational areas in the labor market further intensifies this pressure. Finally, the non-traditional education and experience of prospective CTE teaching candidates make it more difficult to obtain a certificate through meeting traditional teacher certification requirements.

Transitional certificates are designed to help professionals in CTE fields join the ranks of state-certified CTE teachers. The Transitional Certificate is available to applicants who have not yet met all of the requirements for the Initial Certificate but may have met some. The Transitional A Certificate is valid for three years and requires a commitment of employment and support from a school district or BOCES. During these three years, the CTE teacher will complete requirements for the Initial Certificate.



The options available in 2013 for a Transitional A Certificate were:

- **Option A.** Candidates who possess an associate degree (or its equivalent) in the CTE field in which the certificate is sought and who have at least two years of documented and satisfactory work experience in the CTE subject for which a certificate is sought.
- Option B. Candidates who possess a high school diploma or its equivalent (but who do not possess an associate degree or its equivalent in the certificate area) and who have at least four years of documented and satisfactory work experience in the CTE subject for which a certificate is sought.

From November 2013–June 2016, New York State Education Department continued to amend the regulations to expand the pathways to CTE certification in the following ways:

- Expanded the availability of the Transitional A Certificate, which was only available for the trade subjects, to the technical titles. The technical titles were: Mechanical Technology 7-12, Electrical/Electronic Technology 7-12, and Computer Technology 7-12, as well as family consumer sciences subjects: Food and Nutrition, Textile and Design, Human Services, and Family Studies.
- Added pathway (Option C): Candidates who are college professors with two years of satisfactory
 postsecondary teaching experience in the CTE certificate area to be substituted for two years of
 work experience in the CTE certificate area sought. This change provided an additional pathway
 for college professors teaching in a CTE related field at the college level to receive a Transitional
 A Certificate.

- Added pathway (Option D): Candidates with a full Bureau of Proprietary School Supervision (BPSS) license in the CTE field and two years of BPSS teaching experience in the CTE field.
- Added pathway **(Option G)**: Candidates with a high school diploma, two years of work experience in the CTE field, and an industry credential in the CTE field.
- Added pathway (Option H): Candidates enrolled in a CTE teacher preparation program and with either one year of work experience in the CTE field or a passing score on an industry exam in the CTE field.
- Added pathway (**Option I**): Candidates with a teaching certificate in grades 7-12 (any subject) and either one year of work experience in the CTE field or an industry related credential.

In June 2016, the Department formed an ad hoc advisory group comprised of stakeholders representing entities that hire, train, or represent CTE teachers, including school districts, BOCES, teacher preparation programs, and teacher unions, to consider how to simplify the existing CTE teacher certification system and reduce barriers to prospective teacher candidates in their progression from Transitional A Certificate to Initial Certificate to Professional Certificate.

Based on the recommendations of the advisory group, New York State Education Department took the following actions in May 2017 to improve the certification process.

- The category levels in TEACH were renamed to reflect the nationally recognized 16 Career Clusters.
- New CTE program titles added to TEACH will be based on the Career Clusters.
- A new pathway (Option J) was added to the Transitional A Certificate for prospective
 candidates who have a bachelor's degree or higher in the certificate area sought or a closely
 related area and one year of satisfactory work experience or hold an industry related
 credential in the certificate area to be taught or in a closely related subject area acceptable to
 the New York State Education Department.
- Transitional A Certificate options are identified as the gateway to Initial and Professional certifications.
 - To obtain an Initial Certificate, in addition to meeting the requirements for a specific Transitional A option, candidates need to complete nine semester hours of pedagogical coursework in the following:
 - Human development and learning including, but not limited to, the impact of culture, heritage, socioeconomic level, and factors in the home and community that may affect a student's readiness to learn
 - Teaching students with disabilities and special health-care needs within the general education classroom, including assistive technology
 - Curriculum and/or instruction, including instructional technology.

- To obtain a Professional Certificate, in addition to the requirements for the Initial
 Certificate and passing the Educating All Students exam, candidates need to complete
 an additional nine semester hours of pedagogical coursework in the following:
 - Teaching literacy skills methods: 3 semester hours
 - Instruction and/or assessment
 - Classroom management

The table that follows summarizes the current requirements for CTE certification options.

CTE Certification Requirements

Transitional A Certificate	Initial Certificate	Professional Certificate
(entry level)	(entry level)	Trofessional certificate
Option A: associate degree or	Any work/education combination	Completion of the requirements
higher in the CTE field plus 2	from Transitional column and 9	for the Initial Certificate and an
years of work experience in the	education credits in:	additional 9 education credits in
CTE field		the following:
	Human development and	_
Option B: high school diploma	learning including, but not limited	Teaching Literacy Skills Methods
and 4 years of work experience in	to, the impact of culture, heritage,	
the CTE field	socioeconomic level, and factors	Instruction and/or Assessment
	in the home and community that	
Option C: associate degree in the	may affect a student's readiness	Classroom Management
CTE field and 2 years of teaching	to learn	
experience at the postsecondary		Plus
level in the CTE field	Teaching students with	Successful completion of
	disabilities and special health-care	Educating All Students
Option D: full Bureau of	needs within the general	certification exam
Proprietary School Supervision	education classroom, including	And
(BPSS) license in the CTE field and	assistive technology	3 years teaching experience in
2 years of BPSS teaching	_	the CTE certificate area
experience in the CTE field	Curriculum and/or instruction,	
	including instructional technology	
Option G: high school diploma, 2		
years of work experience in the		
CTE field, and an industry	Note: applicants can apply directly	
credential in the CTE field	for the Initial Certificate if they	
Oution II. annullment in a CTF	possess the work/education	
Option H: enrollment in a CTE	background in Options A through J	
program and either 1 year of	And the 9 education credits listed	
work experience in the CTE field	above	
or a passing score on an industry exam in the CTE field	above	
exam in the CTE field		
Ontion I: teaching certificate in		
-		
*		
. c.acca of cachinal		
Option J: bachelor's degree and		
-		
-		
credential in the CTE field		
Option I: teaching certificate in grades 7-12 (any subject) and either 1 year of work experience in the CTE field or an industry related credential Option J: bachelor's degree and either 1 year of work experience in the CTE field or an industry		

Candidates using one of the Transitional A options are eligible to receive a certificate in one of the CTE titles below. Teachers with a Transitional A Certificate are not appropriately certified to teach below grade 7 and may not be appropriately certified to teach all courses in Agricultural Education, Business and Marketing Education, and Family and Consumer Sciences Education. There is no Transitional A Certificate for Technology Education. Refer to TEACH Certification Requirements.

Selected Agricultural Education Titles

- Animal Production Science and Business 7-12
- Agriculture Engineering and Mechanics 7-12
- Plant Science 7-12
- Animal Science 7-12
- Natural Resources and Ecology 7-12

Selected Business and Marketing Education Titles

• Business and Entrepreneurship 7-12

Selected Family and Consumer Sciences Titles

- Foods and Nutrition 7-12
- Human Services and Family Studies Cluster 7-12
- Textiles and Design Cluster 7-12

Oher Certificates

While the Transitional A Certificate has been the primary pathway to help professionals in CTE fields become state-certified CTE teachers, the pathways listed below are also available:

- Supplementary Certificate: This certificate is issued to New York State certified classroom teachers to enable them to teach in a different subject area where a shortage exists.
- Transitional B Certificate
- Transitional C Certificate

For further information, refer to New York State Education Department Office of Teaching website, Types of Certificates.

In efforts to address the difficulty in finding qualified CTE teachers, school administrators should be aware of the following regulations related to certified teachers.

- Incidental Teaching An option for teachers to teach for limited time outside of certification area
- Substitute Teaching Regulations regarding substitutes
- Teaching Assistants and Teacher Aides

Teacher Certification Resources

New York State Education Department's teacher certification website provides useful resources to help navigate teacher certification issues. For more information, please see:

- Teacher Certification Main Page
- Search Certification of Database
- CTE Certification FAQ
- May 3, 2017 Regents Item: Amendment to Part 80 related to pathways for candidates to pursue Transitional A, Initial, and/or Professional CTE certificates

Chapter 12: Continuing Teacher and Leader Education (CTLE)

In March 2016, the Board of Regents approved regulations to implement a state law related to registration, Continuing Teacher and Leader Education (CTLE), and the approval of sponsors providing CTLE (Section 3006 of the Education Law).

Teacher/Leader Registration

Commencing with the 2016-17 school year, the new law requires that any holder of the following certificates to register with the New York State Education Department every five years:

- permanent or professional teaching certificate in the classroom teaching service
- permanent or professional leader certificate in the educational leadership service (i.e., school building leader, school district leader, school district business leader)
- Level III Teaching Assistant certificate

These certificate holders must be registered in order to practice in a New York State public school district or BOCES.

CTLE Requirement

The law also requires, commencing with the 2016-17 school year, that holders of professional certificates in the classroom teaching service or educational leadership service and holders of Level III teaching assistant certificates (but not holders of permanent certificates) who are practicing in a New York State public school or BOCES to complete **100 hours** of Continuing Teacher and Leader Education (CTLE) during each five-year registration period. This is a change from the previous requirement of 175 hours for those who hold professional certificates and from 75 to 100 hours for those who hold Level III Teaching Assistant certificates.

The statute defines CTLE as activities designed to improve the teacher or leader's pedagogical and/or leadership skills, targeted at improving student performance, including but not limited to formal continuing education. Such activities should promote the professionalism of teaching/leading and be closely aligned to district goals for student performance which meet the standards established by New York State Education Department. The amendment requires CTLE to be aligned with the New York State Professional Development standards created by the Professional Standards and Practices Board.

CTLE Approved Providers

The law requires New York State Education Department to approve all CTLE providers. In order to become an approved provider, school districts and BOCES are required to submit their professional development plan and attest that their plan is consistent with Commissioner's Regulations 100.2(dd) and that they meet the requirements of Subpart 80-6 for approved CTLE. Professional development plans should include a list of contracted entities or individuals that will provide CTLE on behalf of the school district or BOCES as well.

Additional CTLE Activities for CTE Teachers and Administrators

CTE administrators at the BOCES and administrators at component districts must ensure that their professional development plans include all professional development activities and consultants used by CTE teachers and administrators. For example, many CTE teachers attend industry training sessions in the summer to ensure their programs are aligned with the latest industry standards. These industry programs and providers must be included in the district/BOCES professional development plan to allow participants to earn CTLE hours.

The professional development plans should also include the work that is done as part of the CTE program approval process. The time that is spent by teachers and administrators completing the program self-study (curriculum review, WBL planning, employability profile, technical assessment, and articulation agreements) should be included. The self-study is a rigorous professional development activity that will help CTE teachers and administrators meet the new CTLE requirements.

Many of the CTE professional organizations are approved CTLE providers. For additional information on providers and guidance to implement the current requirements, please see CTLE Registration Guidance.

Chapter 13: Community Connections

The connections among CTE programs and the community are multi-faceted. Employers, community organizations, government, and individuals support CTE programs through curriculum advice, workbased learning opportunities, evaluating student work, community service, and advocacy. The district or school CTE administrator should initiate and model for staff ways to develop strong relationships with members of the community.

Advisory Councils

School districts and BOCES with approved CTE programs are required to have advisory councils; they are an essential part of the program approval requirements.

Following is the section of Education Law related to CTE advisory councils.

New York Consolidated Laws, Education Law: EDN § 4601. Advisory councils

- 1. The board of education of each school district and of each board of cooperative educational services maintaining an approved career education program shall appoint an advisory council for career education consisting of at least ten members. The membership shall include, but not be limited to, persons:
 - a. Familiar with the vocational needs and problems of management and labor in the region.
 - b. Familiar with programs of career education at the postsecondary and adult levels.
 - c. Familiar with the manpower needs and requirements of the region to be served.
 - d. Familiar with the special educational needs of the physically and mentally handicapped.
 - e. Representative of community interests, including persons familiar with the special needs of the population to be served.
 - f. A student who is participating in a career education program at the school district or board of cooperative educational services district being served by the advisory council.
- 2. It shall be the duty of such advisory council for career education to advise the board of education or board of cooperative education on the development of and policy matters arising in the administration of career education, including the preparation of long-range and annual program plans submitted to the commissioner of education, and assist with an annual evaluation of career education programs, services and activities provided by the school district or board of cooperative education.
- 3. Advisory councils may appoint consultant committees, representative of specific occupational fields to assist in the work of the council and the board of education or board of cooperative education with respect to the planning, development and requirements for establishment of new programs or evaluation and revision of existing programs.
- 4. The board of education of any school district or the board of cooperative educational services [BOCES] may employ such professional, technical and clerical personnel as may be necessary to enable the advisory council to carry out its functions specified in this section.

Education Connections

In addition to relationships with community groups and individuals, CTE administrators need to develop and maintain strong relationships and frequent communication with local educational institutions.

Higher education is critical to fostering articulation agreements between secondary and postsecondary technical programs to help ensure a smooth transition for students wishing to continue their technical skill development.

For BOCES administrators, relationships with local school administrators are essential. BOCES students are district students as well, and these administrators share a mutual responsibility to ensure that students pursue their fields of interest and develop skills to achieve their career goals. Many local high schools have their own CTE programs, so both administrators may need to work with common employer partners. In addition, local CTE programs in grades 7-10 can be the beginning of career pathways for students who then complete their programs at a BOCES Technical Center.

For high school administrators, it is important to build connections with middle level administrators to scaffold connections in CTE from middle level to high school. Schools that have access to a BOCES technical center should include connections to the CTE offerings at the center in their career pathways.

Resources for Working with Community Partners

Community partnerships are commonly understood to be beneficial to CTE programs, but partnership development often becomes one of those "nice to have" items on the priority list that there is never quite enough time for. But there are good reasons to carve out the time to engage local businesses in CTE programs. For one, it goes to the heart of the mission of CTE: preparing students for the options after high school. The Perkins-funded CTE Technical Assistance Center (under contract with NYSED) has many resources and ideas to help develop community partnerships.

Chapter 14: Career and Technical Education Student Organizations

Career and Technical Student Organizations (CTSOs) integrate CTE curriculum with leadership skills, career readiness, community involvement, and competitions. These non-profit educational associations are integral to the curriculum and an important part of 21st century CTE programs.

Within the context of the instructional program, a CTSO brings together students interested in a specific CTE content area and provides them with a range of individual, cooperative, and competitive activities. The U.S. Department of Education recognizes CTSOs in a policy statement signed by the secretary of education. In addition, legislative support for these co-curricular activities is included in current federal CTE legislation (Perkins IV).

The seven New York CTSOs chartered by New York State Education Department are described below.



NYS DECA National DECA

The New York Association of DECA, Inc., is affiliated with National DECA and chartered as a co-curricular activity. Its program of leadership and personal development is designed specifically for students interested in marketing, management, and entrepreneurship. The goals of DECA, commonly known as the 4 points of the DECA Diamond, are to promote leadership development, civic consciousness, social intelligence, and vocational understanding.



NYS FCCLA National FCCLA

Family, Career and Community Leaders of America is the only national CTSO with the family as its central focus. FCCLA members address important personal, work, and societal issues through family and consumer sciences education. Chapter projects focus on youth concerns, including teen pregnancy, parenting, family relationships, substance abuse, peer pressure, environment, nutrition and fitness, teen violence, and career exploration. FCCLA offers members the opportunity to expand their leadership potential and develop skills for life in the home and workplace, including planning, goal setting, problem solving, decision-making, and interpersonal communication.



Future Business Leaders of America (FBLA) is a national organization for all high school students in business education. Its purpose is to provide, as an integral part of the instructional program, additional opportunities for middle and secondary school students in business courses to develop vocational and career supportive competencies and to cultivate civic and personal responsibility. As a co-curricular program, FBLA is integral part of the business education program. All schools should attempt to develop an ongoing FBLA program as part of their education program.



NYS FFA National FFA

Founded in 1928 as the Future Farmers of America, FFA brought together students, teachers and agribusiness to solidify support for agricultural education. Today, National FFA remains committed to the individual student, providing a path to achievement in premier leadership, personal growth and career success through agricultural education. The organization is expanding the "traditional" view of agriculture and recognizing the diversity of food, fiber, and natural resources careers.



NYS HOSA National HOSA

The purpose of HOSA is to develop leadership skills and technical competencies of future health professionals through a program of motivation, awareness, and recognition that is an integral part of the health science instructional program. The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill, and leadership development of all health science students, therefore helping the students meet the needs of the health care community.



NYS SkillsUSA National SkillsUSA

The New York Association of SkillsUSA serves students in high school and college/postsecondary programs preparing for careers in trade, technical, and skilled service occupations, including health occupations. It is affiliated with national SkillsUSA and is a partnership of students, teachers, and industry working together to ensure the United States has a skilled workforce. SkillsUSA helps each student excel. Its mission is to empower members to become world-class workers, leaders, and responsible citizens.



The Technology Student Association (TSA) serves middle level and high school students who are engaged in science, technology, engineering, and mathematics (STEM). Since TSA was chartered in 1978, almost 4,000,000 members have participated in challenging competitions, leadership opportunities, and community service. TSA fosters personal growth and opportunities in technology, innovation, design, and engineering. Members apply and integrate STEM concepts through co-curricular activities, competitive events, and related programs.

Chapter 15: Professional Organizations

There are several professional organizations that represent CTE teachers and administrators on the national and state levels. The Association for Career and Technical Education (ACTE) is the national umbrella organization that advocates and supports all CTE educators. The specific New York organizations are described below.



New York State Association for Career and Technical Education

NYSACTE is the advocate for Career and Technical Education, an integral part of the total education system in New York. Its mission is:

- To provide leadership in developing a competitive workforce
- To provide leadership and unification for Career and Technical Education professional associations
- To provide the members of the Career and Technical education community with professional development
- To promote Career and Technical education with students, student leadership organizations, the education community, and the public
- To monitor and initiate legislative and policy activities that enhance and promote Career and Technical education



Association of Career and Technical Education Administrators

The Association of Career and Technical Education Administrators (ACTEA) is a non-profit organization that consists of New York State Career and Technical Education administrators. Selected administrators serve on ACTEA's board to promote and monitor Career and Technical initiatives in New York State. ACTEA has recently added an organizational membership to serve teachers that are not supported by other CTE professional organizations.

ACTEA represents the needs and interests of Career and Technical Education (CTE) programs, staff and students. ACTEA also helps set standards and advocate for CTE. They identify and analyze data with the State Education Department (SED) to determine student outcomes as well as request specific action from SED. ACTEA aids in setting instructional standards for all New York State approved CTE programs through on-going work in curriculum development. ACTEA also exists in order to maintain professional standards among educators involved in various aspects of Career and Technical Education in New York State.

ACTEA cooperates with the Association for Career and Technical Education, New York State Association of Career and Technical Educators, and any other professional group with objectives compatible to those of ACTEA, Inc.

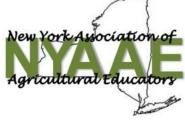


Business Teachers Association of New York State

The Business Teachers Association of New York State is a voluntary professional organization that provides networking, support, and professional growth opportunities for its members to effectively educate today's students for tomorrow's global economy.

Objectives:

- To stimulate professional growth
- To protect the interests of business/marketing educators in New York State
- To provide an opportunity for consultation and study of mutual problems
- To provide an opportunity for discussion and study of common interests of New York State business/marketing teachers
- To provide an organization to bring in specialists in various fields to acquaint the association with the newest trends in business/marketing education
- To provide a medium for the development of a public relations program in business/marketing education
- To promote and foster social contacts among those interested in business/marketing education



New York Association of Agricultural Educators

As the professional association for agricultural educators, NYAAE provides opportunities for professional growth, improvement, and recognition while helping its members become more effective educators. NYAAE membership consists of middle and High School educators, Post Secondary Professors, and Administrators.

The mission of agricultural education is to provide a total, dynamic educational system. We aspire to excellence as we recruit, prepare, and support individuals in agricultural careers. We serve the people and inform them about agriculture, its needs, opportunities, and challenges.



New York State Association of Family and Consumer Sciences Educators

The mission of Family & Consumer Sciences Education is to prepare students for family life, work life, and careers in Family & Consumer Sciences by providing opportunities to develop the knowledge, skills, attitudes, and behaviors needed for:

- Strengthening the well-being of individuals and families across the life span
- Becoming responsible citizens and leaders in family, community, and work settings
- Promoting optimal nutrition and wellness across the life span
- Managing resources to meet the material needs of individuals and families
- Balancing personal, home, family, and work lives
- Using critical and creative thinking skills to address problems in diverse family, community, and work environments
- Successful life management, employment, and career development
- Functioning effectively as providers and consumers of goods and services



New York State Technology and Engineering Educators Association

The New York State Technology and Engineering Educators Association is the professional association of Technology Education teachers. We are working to ensure the technological literacy of New York State students. NYSTEEA creates and encourages opportunities for professional development and collaboration of Technology teachers. We support student participation and achievement in technology learning activities and competitions. Our organization is not for profit and is guided by an Executive Board and Advisory Council.

Membership in your professional organization strengthens our profession. The benefits of membership and the accomplishments of the organization are numerous.

- Update of middle level and high school curricula
- A network of professional development workshops
- A network of mini conferences around the state
- A network of professional development workshops
- Organize and support a NYSTEEA student competition
- Establishment of NYSTEEA student scholarship fund
- Development of technology content that aligns with State and National standards
- Maintain an active web site that includes job listings
- Maintain contact with the State Education Department
- Monitor legislative and political action
- Monitor Board of Regents actions
- Promote Technology Education within the industrial and business community
- Expand our relationships with the math and science professional community
- NSF grant participation



Work Experience Coordinators' Association of New York State

WECA is a New York State organization that promotes work-based learning programs for all students under the auspices of the State Education Department and the Career Development and Occupational Studies Framework. Our members comprise a wide range of school and business professionals who work collaboratively to engage students in relevant, "real world" learning opportunities ranging from career awareness to career exploration and career development.

Goals:

- To unite all engaged in work-based learning programs and collectively share information and ideas for the promotion of these programs in New York State.
- To serve as a liaison between our local organizations and the State Education Department for information relative to work-based learning programs in New York State.
- To promote education and certification of teachers coordinating work-based learning programs throughout the state.
- To aid in the development of new programs across the state.
- To support and promote occupational programs, career majors, and other work-based learning programs.
- To promote and support student leadership organizations.
- To establish and maintain relationships with similar organizations in New York and other states.



New York State Health Science Educators Association

The New York State Health Science Educators Association provides the following services:

- Promotes and maintains active leadership in significant issues affecting Health Occupations and Career and Technical Education.
- Serves as a resource group for educators seeking consultation concerning Health
 Occupations Education and promotes communication among NYSHOEA members.
- Conducts annual meeting to promote staff development and address current issues.
- Collaborates with other groups or individuals on matters affecting Health Occupations Education and supports SED activities.
- Promotes active participation in Student Leadership Organizations (HOSA/SkillsUSA).



New York State Trade and Technical Teachers' Association

NYSTTTA, started in 2017, is for CTE Teachers who are certified to teach Trade and Technical subjects. The purposes of the organization are to:

- stimulate professional growth for Trade and Technical Teachers
- protect the interests of Trade and Technical Teachers in New York State
- provide an opportunity for collaboration and attention to mutual problems or concerns
- provide an opportunity for addressing and supporting common interests of New York State
 Trade and Technical Teachers
- provide the organization with support from business and industry to remain current with the trends in workforce needs
- provide support for public relations initiatives related to Trade and Technical Education